

THE CHALLENGES OF ONLINE LEARNING POST COVID-19 PANDEMIC AMONG STUDENT REPRESENTATIVE COUNCIL IN UTeM

A project report submitted in partial fulfilment of the requirement for the award of the degree of Bachelor (Hons.) of Technology Management (Innovation)



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2023



SUPERVISOR DECLARATION

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With the exception of citations and quotations that have been properly acknowledged, I hereby declare that this thesis is based on my original work. I further declare that it has not been submitted for any degree or award at Universiti Teknikal Malaysia Melaka or any other institution earlier or concurrently.



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JANUARY 2023

DEDICATION

This humble work is dedicated to:

My supportive family, for the infinity love and sacrifices;



To Allah SWT, the Almighty and;

Muhammad SAW, the best teacher and messenger

ACKNOWLEDGEMENT

Alhamdulillah, praise to Allah S.W.T

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ABSTRACT

Online Learning encompasses a range of technologies such as the world wide web, email, chat, new groups and texts, audio and video conferencing delivered over computer networks to impart education. There are some advantages to the implementation of online learning in education particularly for higher education institutions, and considering its many advantages and benefits, online learning is considered to be one of the best methods of education. This research discusses the study's background, including how online learning is defined, as well as the challenges of online learning that affect the Student Representative Council (SRC). For this research, there are three main research objectives and research questions that have been clearly discussed by the researcher. Lastly, the researcher uses primary data by distributing the interview semi-structured questions to the SRC and secondary data obtained from internet articles and journals as a research method for this project. The researcher hopes that this research will benefit the students, universities, and government as a blueprint for the continuity of education post-pandemic in the future.

Keywords: Online learning, Covid-19, Roles, Challenges, Solutions

ABSTRAK

Pembelajaran Dalam Talian merangkumi pelbagai teknologi seperti web seluruh dunia, emel, sembang, kumpulan dan teks baharu, persidangan audio dan video yang dihantar melalui rangkaian komputer untuk menyampaikan pendidikan. Terdapat beberapa kelebihan kepada pelaksanaan pembelajaran dalam talian dalam pendidikan khususnya untuk institusi pengajian tinggi, dan memandangkan banyak kelebihan dan faedahnya, pembelajaran dalam talian dianggap sebagai salah satu kaedah pendidikan terbaik. Penyelidikan ini membincangkan latar belakang kajian, termasuk bagaimana pembelajaran dalam talian ditakrifkan, serta cabaran pembelajaran dalam talian yang mempengaruhi Majlis Perwakilan Pelajar (MPP). Bagi penyelidikan ini, terdapat tiga objektif kajian utama dan persoalan kajian yang telah dibincangkan dengan jelas oleh pengkaji. Akhir sekali, pengkaji menggunakan data primer dengan mengedarkan soalan temu bual separa berstruktur kepada MPP dan data sekunder yang diperoleh daripada artikel dan jurnal internet sebagai kaedah kajian untuk projek ini. Pengkaji berharap agar penyelidikan ini dapat memberi manfaat kepada pelajar, universiti dan kerajaan sebagai "cetak biru" untuk kesinambungan pendidikan pasca pandemik pada masa hadapan.

Kata kunci: Pembelajaran dalam talian, Covid-19, Peranan, Cabaran, Penyelesaian

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CHAPTER ONE: INTRODUCTION

The researcher chooses to investigate the challenges of online learning post Covid-19 pandemic among Student Representative Council (SRC) in UTeM. This chapter explains the introduction of this research, which is the background of the study, problem statement, research question, research objective, scope of the study, research significance, and summary.

1.1 Background of The Study

It is a long time in universities, the typical instructional delivery system was a classroom with a professor delivering lectures to students and the students listening and taking notes. The professor-student relationship has been identified as an important component of learning in this delivery platform. However, numerous new qualities are suggested by technology that can be used to make instruction more engaging for. It is frequently assumed that new technology alters educational practises. Many proponents of online learning believe that everyone should be prepared with a basic understanding of technology and the ability to use it to accomplish educational goals.

The world is battling a Covid-19 pandemic since earlier 2020. Malaysia was no exception. It was on January 25, 2020, that Malaysia's first confirmed Covid-19 infection in 2020 was discovered when a Chinese tourist, who entered Malaysia through Singapore, was discovered to have the virus. At the end of April 14, 2020, Malaysia's Ministry of Health (MOH) reported 4,987 confirmed Covid-19 cases, resulting in 82 fatalities.

An authority termed the Movement Control Order (MCO) has been put into place for Malaysians as a result of the exponential daily rise in the number of Covid-19 infected patients declared by Ex-Malaysian Prime Minister Tan Sri Muhyiddin Yassin, who took effect on March 18, 2020. Educational institutions were also impacted by the pandemic, which ultimately altered the way education is acquired. In Malaysia, the rapid expansion of Covid-19 has compelled governments to close faculties and implement remote education.

The Malaysian Ministry of Higher Education (MOHE) has stated that all public and private universities would use online learning until the end of December 2020 to undertake

teaching and learning activities. In addition, students at all public and private universities were compelled to postpone all courses and lectures for two (2) weeks during the first phase of the MCO. Besides that, starting of April 2020, these universities will be compelled to offer lessons and instruction via any appropriate online platforms.

For the first time, all lecturers were required to deliver their teaching through online courses and classes. Lecturers have experienced several difficulties as a result of this teaching method. Besides that, experts have concluded that specific study is needed to take use of these educators' unique perspectives. Educators, SRC, future candidate of SRC and interested parties might benefit from the findings of this research, which could help them better understand the problems that occurs through online learning in Malaysia's education sector.

The order made by MOHE were affecting all public and private universities to encourages lecturers to teach from home and students to study from home, making online learning a popular to the emergence of new learning behaviour changes has a wide impact on various aspects of universities life. This phenomenon is difficult for lecturers and students to accept since they are not prepared to adjust to the digital environment, but it is unavoidable. In addition, online learning was the preferred methodology of lectures for universities.

Furthermore, the need for online learning has been expanding due to its capacity to reach worldwide users, unique capability, accessibility, and adjustability in the long term (Azhari and Ming, 2015). Under the Malaysian Education Blueprint 2015–2025 (Higher Education), the MOE has undertaken measures in making online learning an important component of higher education and lifelong learning.

Universiti Teknikal Malaysia Melaka (UTeM), a Malaysia's public university, began online learning since MOHE implemented a policy regarding policy of MCO by the government. Learning management system (LMS) known as ULearn was updated to cater with the new online learning implementation such as it is more smooth, easy navigation, and organized. Other than that, UTeM were using massive open online course (MOOC) as their online platform initiative before pandemic Covid-19 hits us. This action was taken from MOHE that introduced MOOC in 2014 to advance the quality of education. Webex and other social media platforms like WhatsApp, Telegram, and YouTube were popular alternatives to MOOCs since they were free and more user-friendly.

However, many university students especially among SRC were discovered to be struggling with online learning in the face of these rapid changes, for students who are handicapped, disadvantaged, or marginalised, online learning might be difficult. (The Regional Risk Communication and Community Engagement (RCCE) Working Group, 2020). The difference and dropout rates among them are a direct result of their incapacity to participate in online learning. Online learning also necessitates the dedication and self-control of students, especially those who are more socially fragile and in need of support in developing their social skills (UNESCO IESALC, 2020).

The quality of online learning as compared to face-to-face lessons is still a subject of debate (Panyajamorn et al., 2018). Even though students in the UK have a high level of computer literacy, they prefer face-to-face teaching and learning, according to a survey (Orton-Johnson, 2009). Computer and internet proficiency, and personal variables including gender, ethnicity, course year level, and financial aid status were found to have an impact on students' preparation for online learning (Lau and Shaikh, 2012).

Even while online learning is a viable choice for both students and lecturers, there are certain limitations, such as the fact that not everyone has easy access to a computer and the internet. According to an online newspaper from Focus Malaysia 2020, Dr Mistirine Radin said that 52% of students lack internet access because of poor infrastructures. Students in remote and isolated parts of Malaysia have difficulties in online learning because of inadequate infrastructure and restricted internet connectivity (Lee, 2020). In addition to limited internet access, students had trouble communicating with their professors, interacting with their peers, and accessing the laboratory.

Online learning also has a number of positives and negatives for students. There are several advantages to implementing online learning, particularly in higher education institutions, and when all of these benefits are examined, online learning is considered to be one of the greatest methods of education. According to Arkorful and Abaidoo (2015), online learning increases the effectiveness of knowledge and certifications by facilitating access to a vast amount of material.

Online learning has their advantages that will be listed some of them here. Students have a lot of schedule and meeting to attend so, with online learning, they should have an accessibility of time and place. Students are able to participate in their classes from any location of their desire, which is yet one of the advantages of receiving an education online. In addition to this, it enables educational institutions to connect with a broader range of prospective students as opposed to being constrained by geographical borders. In addition, online lectures

may be recorded, kept, and distributed for use as references at a later time. Students are therefore able to access the curricular information whenever it is most convenient for them.

Other than that, the lower overall cost for online learning is just another advantage of this kind of learning method. Learning one in a virtual environment is significantly more cost-effective than learning in the physical environment. This is due to the fact that participating in online classes removes the need for students to pay for things like transportation, meals, and most crucially, hostel. In addition, all of the class or study materials may be accessed online, making it possible to create a paperless learning environment. This results in an educational setting that is not only more cost-effective, but also better for the environment.

On the other hand, online learning also has their own disadvantages. Learning online can be difficult for many students because it requires them to concentrate on the screen for extended periods of time, which can be difficult for certain individuals. Students have a significantly increased risk of becoming quickly interrupted by social media and other websites when they participate in online learning. As a result, it is essential for lecturers to keep their online sessions succinct, interesting, and interactive in order to assist students in maintaining their concentration on the material being taught.

Moreover, students can get a great deal of knowledge simply by spending time with their colleagues. However, there are hardly any face-to-face contacts between the students and the lecturers in an online class. The students are frequently left with the impression that they are on their own as a consequence of this. In light of this circumstance, it is absolutely necessary for the university to make provisions for other modes of communication between the students and the lecturers. This can involve engagement through online messaging, emails, and video meeting, which will minimise the feeling of isolation and allow for less time spent alone.

As a consequence of this, each of these issues presents a challenge for both students and lecturers in online learning method. This issue presents a challenge that has an effect on the way students perceive online learning. After the Covid-19 epidemic, this study was carried out with the purpose of solving the challenges that university students encounter when it comes to online learning. Both the lecturers and the students have a responsibility to be more conscious of any shifts that may occur in the teaching method as a result of the passage of time.

1.2 Problem Statement

As a country has progressed, students have been introduced to the concept of online learning. Online learning can be done through a variety of other mediums and applications as well. As a result, students' ability to learn and use technology can be enhanced through participation in online programs. However, the evaluation is focused solely on external factors and does not consider the student's own internal factors. For an example for student's own internal factors such as their difficulties to stay focused on purely online context, they faced boredom, and lack of self-organising capabilities. As a result, some students are not able to use online learning related to these reasons.

Other than that, students who are disabled, disadvantaged, or marginalised, online learning might be difficult for them (The Regional Risk Communication and Community Engagement (RCCE) Working Group, 2020). The difference and dropout rates among them are caused by their inability to access and participate in online learning. Furthermore, students who are more socially insecure and require engagement to improve their social skills, online learning also necessitates a high level of student commitment and self-discipline (UNESCO IESALC, 2020).

Self-motivation is a crucial necessity for online learners, nonetheless, many online students are surprised to discover that they lack this ability. After enrolling in courses offered through online learning, many students find that they are unable to keep up with the materials and entertain the possibility of quitting their studies altogether since the challenges of dealing with technology platforms appear to be overwhelming. Students need to find the motivation to follow the latest educational trends, and they also need to adequately equip themselves for the difficulties they will face in their education and career in the future. Only a positive mindset will be able to assist them to overcome the problems that they face in online learning method. Even though this is difficult to put into practise, students need to be aware that it is important in order for them to enjoy the benefits of online learning in the future.

Students frequently expressed having trouble managing their time effectively when attending their online classes. They have no prior experience with online learning, so it will need a lot of effort on their part. They are unable to effectively manage their time without a planned planner at their disposal. In contrast to traditional classrooms, online learning allows for more flexibility with regard to scheduling. However, some of them have trouble adjusting to the time commitment that is necessary for online learning. In addition, they lack the art of mastering time management because the effort and time commitment involved in online learning can be extensive. In addition, despite the fact that they are the most likely to favour web-based learning programmes due to the flexibility they offer regarding their location, students rarely have the time to actually participate in the classes themselves because of the many other responsibilities they have in their daily lives.

Moreover, Saud (2015) claimed that the technology's accessibility, adaptability, and efficiency are their own factors or dimensions. For online learning reasons, it is also important to assess the capabilities and efficacy of the technology being employed. This is due to the fact that not all technologies are available to students and teachers. Online learning necessitates the use of cutting-edge technology, and this is especially true given how rapidly the field evolves. In addition, the use of proper technology can encourage students to continue their education on the internet. Online learning frameworks used to create and govern information are no longer capable of retaining a student's attention when he or she is engaged in learning activities (Aixia, 2011).

Since many students do not have access to the high bandwidth or the stable internet connection that is necessary for online classes, they are unable to keep up with their virtual colleague which in turn creates difficulties for their learning activities and experiences. Students in remote and isolated parts of Malaysia have difficulties in online learning because of inadequate infrastructure and restricted internet connectivity (Lee, 2020). In addition, due to their little knowledge of technology and software applications, students frequently experience difficulties when participating in online classes. How quickly they are able to attend the class and ensure that they do not miss any live sessions can be significantly impacted by the speed and quality of their internet connection. There is a chance that their internet connection is bad if they have trouble downloading certain information relevant to the topic, experience blurry videos, or other similar issues.

Furthermore, even though students are generally knowledgeable with technology and, as a result, are able to use computers effectively, a significant problem exists among today's students in the form of a lack of computer literacy. Most of them are incapable of handling even the most fundamental applications, such as Microsoft Word and PowerPoint, and as a result, they are unable to manage their documents well. Additionally, many students struggle to fix even the most fundamental computer issues such as opening the back cover of their laptop

to diagnose the laptop since they lack understanding in this subject area, which makes the process frustrating for them. The ability to follow online learning, however, requires students to have a certain level of technological skill. This is because students need to be able to organise their coursework and assignments without too much difficulty.

After been exposed to the traditional learning environment of a classroom for many years, the students have a tough time adjusting to the setting of online learning. Students who are accustomed to learn in a classic classroom setting find it difficult to concentrate on multiple tasks on the online learning platform at the same time. Because of their refusal to accept, they are unable to adjust to the atmosphere of online learning. In a traditional classroom setting, students are expected to take notes and actively listen to the lecturers. However, participating in online classes requires students to be more active. Students that think in a traditional mindset find it challenging to adjust to new learning environments, yet it is imperative that these students do so with an open mind and heart in order to be successful. This perspective can be changed, and students will be more prepared for online classes, if they are aware of the benefits of online learning such as it is one of efficient way to get class materials online.

1.3 Research Question

To achieve the objectives of the study, this research aims to investigate the following questions:

- 1) What are the roles of online learning among university students?
- 2) Why university students face challenges for online learning?
- 3) How the problems of online learning can be solved among university students?

1.4 Research Objective

The following are the research objectives that trying to achieve in this study:

- 1) To study the role of online learning among university students.
- 2) To examine the challenges of online learning among university students.
- 3) To recommend solutions of online learning among university students.

1.5 Scope of The Study

This study is focused on finding the The Challenges of Online Learning Among Student Representative Council of UTeM. This study will provide three (3) main objectives that consists of (1) the role of online learning among Student Representative Council, (2) the challenges of online learning face among Student Representative Council, and (3) the solution of online leaning among Student Representative Council.

This study targeted a potential participant by filtration them to only six (6) respondents that are focusing on SRC of UTeM from eight (6) faculties that consists of Faculty of Electronics and Computer Engineering, Faculty of Electrical Engineering, Faculty of Manufacturing Engineering, Faculty of Information and Communications Technology, Faculty of Technology Management and Technopreneurship, and Faculty of Electrical and Electronic Engineering Technology. This is because, these students have a big responsibility as a student and as a SRC to cater with meetings and events that occur inside and outside university. They play a crucial role as SRC to provide solutions from decision they will make as stated in their manifestos to all university students.

Besides that, these students were experienced a beneficial of time during online learning for the past two (2) years before they became SRC, so researcher believe this study is suitable to meet the need of their perspective as an experienced students of online learning before became an SRC, while being SRC and after being an SRC. This study also wanted to provide what is the solutions that best to fit the need of future candidate of SRC to serve to all challenges that will occurs so that the management of SRC will have a better decision making on what they are going to do.

1.6 Research Significance

This study is beneficial to student and future researcher who wish to further review the challenges of online learning after Covid-19 pandemic among university students in UTeM. Also, this study will benefit students by providing on how student can improve their skill and knowledge despite of new method of learning in Malaysia. This improvement later will make the student as a future leader. The leadership skill that they will have will shape them as a discipline individual, have critical thinking as well as a problem solver.

This study will benefit public and private universities in Malaysia by providing more facilities regarding online learning for student to utilise it. The facility could be a good and stable internet connectivity and a strong bandwidth. By providing this, it will directly give more opportunities for student to stay competent in the learning process. In addition, universities could hold a program related to online method for students such as webinar that is cost-efficient.

This study will benefit government and industries to make a collaboration to strengthen a policy regarding online learning method. Government could provide initiative for helping students by giving student voucher or money credited to student's e-wallet platforms. Government also can collaborate with telecommunication companies to provide a good and smooth internet connectivity as well as strong bandwidth across the country. In addition, the program that launch by government called JENDELA is one of the good examples to lighten the load of students.

1.7 Summary

This chapter is consisting of a background of the study, which is related to the challenges of students and also about online learning. Then, describes the problem statement for this research which includes the dimensions of learners, instructors, and technology. It also includes the purpose of this research which is finding the critical challenges affecting student's capability towards online learning. This chapter also includes the research questions, research objectives, scope of the study, and the significance of study.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter provides an overall literature review of the previous study relating to the title of this research. Besides, within the section, the study distance identified of earlier studies was also clarified. This study begins by reviewing several journals, article, books, and sources from internet. In this chapter, the researcher will determine how the use of previous research will generate the information and detail for this study. The researcher will explain the challenges of online learning after Covid-19 Pandemic among Student Representative Council in UTeM by referring to previous research.

2.2 Overview of Education in Malaysia

The responsibility of ensuring that Malaysians achieve a high education falls on the government, which is represented by the Ministry of Education (MOE). Pre-school to university is all part of Malaysian education. The MOE aims to establish Malaysia into a global education hub. Over 95% of primary and secondary education, as well as 60% of tertiary education, is funded by the government, according to MOHE (Ministry of Higher Education, 2010).

2019) UNIVERSITI TEKNIKAL MALAYSIA MELAKA

Malaysian university had been ranked in the top 100 of the world's best by QS (Quacquarelli Symonds) stated in 2017. Meanwhile, Malaysian researchers and lecturers appeared in prestigious foreign journals to demonstrate their research accomplishments. In 2012, the number of international students enrolled in Malaysian universities topped 100 thousand, making Malaysia a "emerging challenger" among the other countries competing for international students (Verbik & Lasanowski, 2007). Overall, education in Malaysia appears to be on the rising trend.

Malaysia as a former colony of Great Britain, has likewise adopted the British educational system. First, there is the six-year-long basic education, which starts when children are (7) seven years old and ends with a national exam referred to as Ujian Pencapaian Sekolah Rendah (UPSR) at the end of Standard 6. After three years of lower secondary school, it follows for public exam called PT3 (abolished in 2022) and two years of upper secondary school, a

final public exam for this compulsory education known as Sijil Pelajaran Malaysia (SPM). This is the equivalent of the O-level (ordinary level) in English education systems. Matriculation or Sijil Tinggi Persekolahan Malaysia (STPM) equal to A-level (advanced level) in English education must be completed within 1.5 years by students who intend to attend university in order to graduate. The Malaysian education system is remarkable for its distribution of large funds, with a minimum annual education budget of 20% of the country's gross domestic product (GDP).

Higher education in Malaysia is formulated through public and private institutions and began with the formation of University Malaya in 1959. To a significant extent, as of 2019, there are 20 public universities (including 5 research universities, 4 comprehensive universities, and 11 focused universities, 38 private universities with 10 branch campuses of foreign universities, 10 private university colleges, 36 public polytechnics, 104 public community colleges, and more than 434 private colleges (MOHE, 2021)

In addition, a wide range of educational institutions from the United Kingdom, United States, Australia, Canada, France, Germany, and New Zealand provide twinning and franchised degree programmes in collaboration with Malaysian universities and colleges (Ministry of Higher Education, 2009). As a result of this rapid growth and the consequent shift in the educational landscape, Malaysia has emerged as an educational hub for the entire region of Southeast Asia. The education industry contributes significantly to the country's GDP. Hence the Malaysian government has placed a high priority on its growth.

Furthermore, Educity in Iskandar Malaysia and Kuala Lumpur Education City (KLEC) are good examples of Malaysia's commitment to becoming a regional education hub. According to the Financial Express (2007), Educity's goal is to deliver high-quality education and generate a qualified workforce to serve foreign companies operating in Iskandar Malaysia's economic zones. A collaborative through research lab and design centre are also on the plan as ways to encourage academic and industrial cooperation. It is also intended to promote Malaysia as an energy-efficient, environmentally friendly, and networked centre for the development of human capital essential to Malaysia's knowledge economy.

The introduction and implementation of the Private Higher Education Institutions (PHEI) Act in 1966 opened the door for reputable foreign universities to open branch campuses in Malaysia, including Monash University, Curtin University, Swinburne University of Technology, and the Universities of Nottingham and Newcastle in the United Kingdom.

According to Sarjit (2008), the establishment of PHEIs has made Malaysian higher education more diverse in terms of educational providers and delivery methods.

Last but not least, the government spelled out its national education philosophy in 1996 that says, to produce individuals who are academically, spiritually, emotionally and physically healthy and balanced with harmonious, based on a solid belief in a devotion to God is the goal of education in Malaysia. Efforts like these are aimed at producing Malaysian people who are well-informed, competent, morally upright, and capable of reaching high levels of well-being for themselves, their families, their communities, and their nation as a whole (Malaysian Education Blueprint, 2013–2025).

As a direct response to the pandemic, the government of Malaysia has enacted a number of different initiatives that are intended to assist and facilitate the transition to online learning. These efforts include assisting students as well as educators in gaining access to the appropriate technology and internet connectivity and investing in the development of digital educational resources. In addition, the government has placed a strong emphasis on the significance of both the training and professional development of educators in order to guarantee the successful implementation of online education. In general, the focus of the government is on ensuring that students are able to continue their education despite the challenges posed by the pandemic and that they are equipped with the necessary skills for the future digital economy. In addition, the government is ensuring that students are equipped with the necessary skills for the current economy.

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2.3 Traditional Learning

Traditional learning is defined as a two-way interaction between the teacher and the students. This is a situation in a classroom scenario, this one allows for direct communication between students and teachers. Research suggests that the traditional learning is a combination of student-teacher relations, student-subject relations, student-learning method relations, and student-perceptions of the classroom structure (Anderson, 1970; Jou, 2010). In addition, with the study done by Comey (2009), theorized that students can learn in a classroom context by using information and concepts that they had gained through a relevant experience based in their lives.

Throughout the ages, the traditional learning model of Aristotle and Skinner has remained dominant. When it comes to traditional education, educators are seen as the primary source of knowledge, while students are seen as receivers of information (Rashty, 1999). Teachers have long held the belief that in classroom learning, students are not given the opportunity to actively participate in the learning process unless their teacher asks them to do a task or asks them a question. Students are expected to accept the information offered by their educators without question (Mara & Luisa, 2016).

According to Cathy Meilleur et al. (2021), traditional learning creates both active and passive students because of the way the learning process is conceived. Students are not encouraged to actively participate in the learning process, but rather focus on the behavioural implications of the current environment and the teacher's role on the learner. However, traditional learning, which is based on behaviourism theory, has been criticised by cognitivist supporters who feel that learners' engagement in the learning process is more relevant in improving learner's abilities, experience, and knowledge (Dorier & Maab, 2012).

2.4 Online Learning

Online learning refers to teaching and learning online, when educators and students use appropriate learning platforms to lecture and learn, respectively (Gunasekaran et al., 2002; Kanuka and Anderson, 2007 and Sun et al. 2008). In precise accordance with the MCO that the administration had proclaimed, face-to-face lectures were prohibited. In the present day, not only do public and private universities use online learning, but corporations also provide certain online courses. According to previous research by Agrawal et al. (2016), there are six (6) significances of online methodology, including learners' ability to acquire expert knowledge, preparation for competitive and academic examinations, any-time and anywhere access, an interactive section, a reduction in learning time, employability skills, sources of skills and knowledge maintained to acquire data, and personal interest.

However, the online learning style implemented during the MCO was unusual and unforeseen by both lecturers and students were compelled to embrace this teaching and learning method for the following semesters. In universities where lecturers and students were already familiar with this method previous to the MCO ban, such a learning and teaching process did not generate unneeded complications. Nevertheless, there were challenges for individuals who were first-timers and had to implement 100% online teaching and learning approaches. These are the objectives being investigated by researchers.

According to Ghirardini (2011), online learning could be defined as the utilisation of computer and Internet technologies to deliver a broad range of learning and performance enhancement options to students. This assertion is backed up by an article published in 2014 by Epignosis, which describes online learning as "an educational platform or framework built on a computer that allows you to learn anywhere and at any time." This fact is corroborated by the article. While as a method of education that mixes self-motivation, teamwork, productivity, and technology, online learning is something that Matt Comerchero puts into practise for himself (Berman, 2006). Learning through the internet also offers an alternative that is less complicated, more affordable, and possibly more advantageous (Epignosis, 2014). According to McSweeney (2010), he listed some of the convenient features of e-learning and educational technologies that make their usage in the classroom a joy, such as: (1) Ease of environment configuration. (2) Connection and access to the room are simple. (3) The simplicity of participant communication. (4) Ease of document sharing. (5) Simplicity of cooperation. (6) The classes' accessibility of recording and archiving. (7) Customizing of the user interface.

In addition to this, Berman (2006) claims that there are numerous types of online learning, each of which may be classified according to the methods of interaction, scheduling, the organisation of online learning classes, and the technologies that are implemented. According to Epignosis (2014), there are a variety of various online learning systems (often referred to as Learning Management Systems, or LMSs for short) and approaches that make the delivery of courses easier. In addition, online learning presents the possibility of disseminating content in a variety of formats, such as photographs, PowerPoint presentations, Microsoft Word, and portable document format (PDF) files (Epignosis, 2014). In addition, both students and lecturers have the opportunity to acquire new information through the utilisation of online learning method. Learners have the chance to incorporate their education into their daily life through the use of online learning, making it possible for even the busiest of individuals to pursue a career and successfully achieve new qualifications (Epignosis, 2014).

According to previous study, online learning facilitates remote interactions between lecturers and students using electronic systems such as the internet, satellite, television, CD-ROM, and radio, etc. Lecturers and students must first comprehend the existing learning platforms in order to speed the teaching and learning processes. Existence of a social media platform with which the majority of students are already acquainted is a benefit of the current situation. In addition to other platforms built by institutions of higher education, such as Google Classroom, Moodle, Webex, Microsoft Teams, and other various existing social media platforms can also be utilised online, since students are familiar with apps such as WhatsApp, Telegram, Facebook, Google Meet, and Instagram. Lecturers and students who are novices or first-timers in the process of comprehending these online platforms will undoubtedly encounter problems. In addition, Stacy, Meredith, and Christian (2018) identified the interruption of oppressive language and actions as one of the issues students and teachers face when it comes to online learning.

2.5 Role of Online Learning among University Students

It is crucial to have a high degree of quality inside the online learning environment in order to meet both the lecturers' and students' expectations of the online environment and of each other. For instance, a student may believe that a high level of quality necessitates a high degree of motivation so that all the content is done on time and with the best possible outcome for the student. Students may prefer an online learning because of its flexibility, but they may also procrastinate, resulting in lower grades or even failure. However, according to Bork and Zawadi (2013), students believe that inspiration should originate from the lecturers, whereas lecturers believe that students should have self-motivation.

In order to ensure quality in this area, quality assurance professionals who are also peers in the field of online learning must conduct quality assessments (Bork & Zawadi, 2013). In order to produce a balanced environment in which student motivation is the student's responsibility with the aid of the lecturer, quality assurance assists in identifying risk factors for both students and lecturers. When a lecturer motivates a student, the student's expectations are satisfied and his or her degree of irritation is lowered, allowing the student to be selfmotivated without the demotivating effects of frustration.

2.5.1 Participation

Students were required to alter their interaction style with their friend. To establish a decent relationship without meeting others, they needed to utilise a smartphone, tablet or laptop. They had to learn without a tutor or companions. It was challenging, but necessary. The assignment given by the lecturer has to be completed. They were bored and hesitant to engage in online learning. The independence and accountability of students in their participation in online learning has to be the central focus. According to Lickona (2012), characters do not simply materialise but simultaneously process from continuously built surroundings. Students are required to engage in a course orientation in order to familiarise themselves with the learning environment that will be utilised throughout the duration of the course, regardless of online method.

2.5.2 Reading the Course Materials

It is essential for students to read all of the course materials (such as the syllabus and the assignments) in order to become acquainted with the requirements of the course. Students will have the capacity to appropriately plan for all of the activities that are included in the course as a result of this.

2.5.3 Organise and Manage Time

There is a possibility that students will not receive as many reminders of the time commitments expected of them in traditional face-to-face classes, but it is different when they take online method of those classes that contain a large portion of the material. Because of this, the student needs to have excellent organisational skills and must pay close attention to the timetable as well as the due dates for the assignments.

2.5.4 Stay in Touch

The student's ability to interact with both their classmates and the lecturer is essential to the success of a traditional classroom setting, as well as an online or blended learning environment. To further assist learning and ensure that tasks are finished on time, students are required to make use of all of the communication methods that are provided within the course (such as email, discussion boards, and chat sections).

2.6 Challenges of Online Learning among University Students

The impact of the worldwide pandemic has affected educational institutions in Malaysia during the midterm break of undergraduate programmes and the ongoing second semester of pre-university programmes (M. Chinazzi et al, 2020). The Malaysian government issued a movement control order (MCO) that, according to S. Abdullah et al. (2020), completely dampens the operational operations of educational institutions in an effort to combat the fatal coronavirus' rising infection rate. As a result, learning institutions should choose to adopt online learning as a viable alternative to the currently accepted norms. To prevent repeated MCO-caused interruptions, the change must be carefully thought out and suitably structured. Given the circumstances, there would be plenty of time to develop a solid instructional design for bachelor's degree programmes that would meet the requirements of the contemporary learning environment.

2.6.1 Online Learning Readiness

In order to be prepared for online learning, students must first have access to technology (R. A. Rasheed, A. Kamsin, and N. A. Abdullah, 2020). According to, S. L. Aj and M. Vijayalakshmi (2020) claimed that lecturers may need extra time to organise their content delivery properly as students also conduct their learning independently. This is because learners would undoubtedly have technical and adjusting difficulties. According to (Lau & Shaikh, 2012), Malaysian students' computer and internet proficiency, as well as their personal attributes like gender, background, academic level,

and socioeconomic status, significantly influence how ready they are for online learning platforms.

According to Abuhassna and Yahaya (2018), the current technologies in education play an essential role in providing a full online learning experience that is nearly equal to a face-to-face class in spite of the physical separation of the students from their lecturers. This is despite the fact that the students are learning in a virtual environment. Individuals who do not approach new material in a linear or systematic method can have their learning needs addressed through the use of online learning platforms, which adapt themselves into a less hierarchical technique in education.

The term "online learning readiness" refers to the capacity of individuals (including students, educators, and institutions) to participate in and support online education in an efficient manner. This involves the capacity to use various digital tools and resources, as well as access to relevant technology such as computers and internet connectivity.

2.6.2 Technical Issue

Academic institutions use their online platforms, which might not be fully prepared to manage the complete procedure (Li and F. Lalani, 2020; M. Othman, 2020; I Lim, 2020; T. Arumugam, 2020), to continue the educational process when universities are closed. It is also challenging to ensure that all students have easy access to laptops or desktop computers, an unrestricted and reliable Internet connection, and both to attend online classes.

According to Pui Yee (2020), there is a significant divide between urban and rural number of internet users in Malaysia, with urban users accounting for 70.0% among all internet users. Jaeger and Blaabaek (2020) revealed differential access to resources for students from high- and low-income families in Denmark, as well. This gap appears to be widespread, especially in developing nations (Upadhyaya, Jain, Iyengar, Patralekh, Vaish, 2020; Li and F. Lalani, 2020; J. Lau, 2020; and N. Kapasia, 2020). Additionally, Internet access and speed vary depending on the cost and location of the students.

According to Lim, Arumugam, and Kapasia (2020), certain students who live in rural locations are expected to have more difficulty obtaining adequate and reliable Internet connectivity than their counterparts who live in urban areas (Pui Yee, 2020). If all lectures and examinations are done online, these students can be treated unfairly (Pui Yee, 2020). As a result, less privileged students might experience more difficulties (Pui Yee, 2020). They encounter numerous hurdles, such as a shortage of tools (computers, internet access), and a peaceful place to study.

Problems that can occur with the technology or equipment being utilised for online learning are referred to as "technical issues." Examples of technical issues include lost internet connectivity or faulty software.

2.6.3 Computer Literacy

In regardless of the possibility that students are aware that adopting technology to enhance their learning has a number of advantages, challenges may still arise due to the limitations of their current expertise and previous experiences with utilising the software itself in terms of how it functions. As has been demonstrated over the course of learner evaluation and perception from several online courses over the years, this can frequently become a source of frustration for both learners and their instructors. This is because it has the potential to make typically uncomplicated duties, such as watching videos, submitting a document, and other simple tasks, progressively more complicated for them, as they have no such prior experience.

In addition, while completing assessments, for example, online group presentation, the limited ability to speak face-to-face and the subsequent reliance on a non-verbal signal in addition to the body language of the audience may be a factor that discourages participation. Nevertheless, the significance of being able to participate with other colleagues using online discussions, which are sometimes nonvisual, for example, teleconference format is becoming an increasingly significant skill in the workplace today, thereby confirming the importance of skills that allow for concise, clear, and intensive interactions (Salmon, 2011; Salmon, 2014). The capacity to use and navigate various digital tools and information is referred to as computer literacy, and it is absolutely necessary for effective participation in online learning.

2.6.4 Socioeconomic Issue

The occurrence of additional technical difficulties was anticipated (Plancher, Shanmugam, and Petterson, 2020). The atmosphere and tools required for a fluid online learning experience are not available to some students due to the disparities in financial resources between the students (Lau, 2020). The home environment for online learning is also important, which places less privileged students in that environment (Lau, 2020; Pui Yee, 2020). (Arumugam, 2020) also states that the effectiveness of online systems may be affected despite heavy load, problems with familiarity with platforms, and tools, as well as the demands of online learning teaching methods, which are different from face-to-face processes.

Apart from that, students could have to pay extra out of budget due to the fact that they are required to upgrade their Internet service and purchase laptops, even if they spend the most of their time using the computers in the university's computer labs (Pui Yee, 2020). In addition, they may have problems obtaining sponsorship as a result of the potential graduation delay and disruption, both of which may have an effect on their academic achievement.

The term "socioeconomic difficulties" refers to the monetary, social, and cultural obstacles that may prohibit students from engaging fully in online education. This can include not having access to technology and a connection to the internet, as well as not having support from families and communities.

Because of the pandemic and endemic, pre-existing inequalities in terms of access to technology, computer literacy, and socioeconomic level have been brought to light and have been made much worse. This makes it more difficult to address all of these concerns during the pandemic age.

2.7 Solutions of Online Learning among University Students

Although there are many problems to online learning, we cannot dismiss its advantages in a situation such as this. To overcome these challenges, we can always find solutions. By prerecorded online lectures, testing the material, and always having a Plan B prepared, technical issue can be resolved without affecting the teaching-learning process. Online classes need to be made engaging, interactive, and dynamic. To encourage students to be awake and focused, lecturers can give them time limitations and reminders.

To the greatest extent possible, work needs to be done to humanise the learning process. Students should receive individualised attention so they can quickly adjust to this educational setting. Students can communicate with students through social media and a variety of group platforms. When it becomes challenging to communicate with students via texts, different messaging apps, video chats, and other tools, communication is the key; topic should be such that students can practise and improve their abilities. Continuous course quality improvement and best effort teaching are both required. Online classes must be made in a way that is innovative, engaging, pertinent, student-centered, and group-based (Partlow & Gibbs, 2003). Making efficient ways for delivering online training requires a lot of time from educators. Effective online instructions encourage feedback from students, encourage them to ask questions, and expand their knowledge of the course material (Keeton, 2004). Through online instructions must concentrate on pedagogical concerns and encourage collaborative learning, case learning, and project-based learning (Kim & Bonk, 2006).

Furthermore, learning possibilities would suffer as a result of this circumstance due to the prevalent nature of social distancing at this level. Educational institutions are having a hard time coming up with solutions to deal with this difficult circumstance. These events have opened our eyes to the fact that academic institutions have an immediate need for scenario planning (Rieley, 2020). This is a circumstance that calls for humanity and togetherness on everyone's part. It is of the utmost importance to defend and save our students, faculty, academic staff, communities, societies, and the country as a whole as soon as possible.

Emotional support from parents is important for most attitudes, and it has a strong link with children' perceptions of their own capabilities. To be more specific, the kind of emotional support that have been proven to be the most effective are those in which parents encourage
their children to have confidence in themselves and in which parents support their children's scholastic endeavours and achievements (OECD Skills Outlook, 2021).

On the side of the educators, the analysis suggests that educational environments in which educators are capable of expressing enthusiasm towards the content of their instruction support the development of positive learning attitudes in students. These attitudes include aspirational learning goals, motivation to master tasks, self-efficacy, and enjoyment of reading. The importance of educators' enthusiasm as a driving factor of student learning has been extensively shown in the literature. For example, enthusiastic teachers help instil in their student's positive subject-related affective experiences and a sense of the personal importance of the subject (Keller et al., 2014), and they motivate and inspire students, increasing the productive time they spend on learning tasks.

2.8 Theory on Online Learning

A theory is a collection of facts, principles, or concepts pertaining to a certain subject. Typically, a theory states, explains, and/or predicts observed phenomena. The definition of theory differs among disciplines, particularly in relation to the term model. According to Graham, Henrie, and Gibbons (2013), both words are interchangeable and relate to the same notion. Nevertheless, a model is typically a visual depiction of reality and a notion. The concepts theory and model must be used interchangeably throughout this presentation. The objective of a theory or model is to provide explanations for the phenomenon's fundamental questions. Graham, Henrie, and Gibbons (2013) evaluated this topic as it relates to online learning and offered a three-part taxonomy that incorporates the following theories:

Explore: "What exists?" and endeavours to define [identify] and classify.

Explain: Why do these things occur? It investigates causation and correlation, as well as working with variables and associations.

Design: "How do I accomplish this result?" It discusses strategies for achieving desired results and working mechanism (Graham, Henrie and Gibbons, 2013, p. 13).

2.8.1 Theories of Education for Online Learning

Just as no particular learning theory has arisen for general education, the same is applicable for online learning. Different theories will be evaluated in terms of their applicability to the online environment in this section.

2.8.1.1 Community of Inquiry (CoI)

Garrison, Anderson, and Archer (2000) established the "community of inquiry" paradigm for online learning environments based on the concept of three separate "presences": cognitive, social, & teaching (see Figure 1). While acknowledging the overlap and connection between the three components, Anderson, Rourke, Garrison, and Archer (2001) recommend additional research on each component. Their methodology encourages the design of online and blended programs as instructional settings or communities depending on instructors and students exchanging ideas and information. Notable is the fact that "presence" is a social phenomenon that emerges through interactions between students and instructors. The community of inquiry has become one of the most popular models for online and blended courses that are designed to be participatory between students and instructors using discussion boards, blogs, wikis and even videoconferencing.



Figure 1. Community of Inquiry (Garrison, Anderson, Garrison and Archer, 2000)

2.8.1.2 Connectivism

Connectivism is a learning model that recognises radical change in the way knowledge and ideas circulate, grow, and change as a result of extensive data communications networks. George Siemens (2004), one of the first MOOC pioneers, has been the main supporter of connectivism. Learning has changed from personal, individual actions to group, social, and even crowd actions thanks to internet technology. Siemens praised Alberto Barabasi's work and the value of networks in refining the idea. He also made reference to a 1998 article by Karen Stephensen titled "What Knowledge Tears Apart, Networks Make Whole," which succinctly described how big networks have become essential for aiding individuals and institutions in managing data and information.

Connectivism is defined by Siemens as:

the fusion of concepts from chaos, network, complexity, and selforganization theories, according to which learning is a process that takes place in hazy settings with moving central components and is not totally within the individual's control. The connections that allow us to learn more and are more crucial than our existing level of knowledge are the focus of learning, which is defined as actionable information that can remain outside of ourselves (inside an organisation or a database) (Siemens, 2004).

Siemens stated that the dynamic of information flow is what propels connectivism as a theory. It's important for students to comprehend how to navigate and identify vast, constantly changing, and evolving bodies of information. Siemens outlined eight connectivism tenets (see Figure 2). When the learning purpose or objective is to generate and produce knowledge rather than communicate it, connectivism is especially effective for programs with very high enrolment.

- 1. Learning and knowledge rests in diversity of opinions.
- 2. Learning is a process of connecting specialized nodes or information sources.
- 3. Learning may reside in non-human appliances.
- 4. Capacity to know more is more critical than what is currently known.
- 5. Nurturing and maintaining connections is needed to facilitate continual learning.
- 6. Ability to see connections between fields, ideas, and concepts is a core skill.
- Currency (accurate, up-to-date knowledge) is the intent of all connectivist learning activities. ERSITITEKNIKAL MALAYSIA MELAKA
- 8. Decision making is itself a learning process. Choosing what to learn and the meaning of incoming information is seen through the lens of a shifting reality. While there is a right answer now, it may be wrong tomorrow due to alterations in the information climate affecting the decision.

Figure 2. Siemens' Eight Principles of Connectivism

2.8.1.3 Online Collaborative Learning (OCL)

A theory put forward by Linda Harasim called online collaborative learning (OCL) focuses on the capabilities of the Internet to offer learning settings that promote cooperation and knowledge building. OCL is defined by Harasim as:

a new paradigm of learning that emphasises Internet use, knowledge construction, and collaborative learning as a way to reform formal, non-formal, and informal learning for the Knowledge Age (Harasim, 2012, p. 81).

OCL also has roots in social constructivism since it encourages students to work together to solve problems through discussion and because the teacher serves as both a facilitator and a member of the learning community. This is a key component of OCL as well as other constructivist theories, in which the teacher uses a more active role in knowledge construction rather than acting as a passive facilitator. OCL is difficult to scale up because of how crucial the teacher's involvement is. OCL works best in smaller learning situations, in contrast to connectivism, which is best suited for large-scale education. When attempting to find commonalities among the ideas of online education, this final issue becomes more crucial.

The term "online collaborative learning" refers to a style of instruction that makes use of various digital platforms and resources in order to encourage student participation in group projects and discussions. This can include things like virtual classrooms, online discussion boards, and tools for collaborative document editing.

In researcher's preference, the OCL will benefit students more in terms of current era of global pandemic. With online learning by using internet as main sources will encourage students to become more outspoken. At the same time, lecturer must contribute actively to the class by providing a material for students. This is how the students will keep entertained to learn in the class.

Students are able to work together on projects, share ideas, and provide feedback to each other in real time; this is one of the primary advantages that comes with participating in online collaborative learning. This can help to create a learning environment that is more interactive and interesting, in addition to assisting students in the development of critical skills such as working together on a team, communicating effectively, and finding solutions to problems.

Students can create a truly global learning experience by participating in online collaborative learning, which can also be an excellent way to connect students with their lecturers It can also serve to make education more accessible to students who may not be able to attend traditional in-person classes due to circumstances beyond their control. In addition, Google Classroom, Zoom, Slack, and Kahoot are just some examples of online collaborative learning platforms that are currently available.



2.9 Research Framework of Online Learning



UNIVERSITFigure 3. Research Framework A MELAKA

The conceptual framework for this study consists of the roles, the challenges, and the solutions on online learning.

2.10 Summary

In conclusion, Chapter 2 explained the literature review about theories from previous authors to deliver better understanding about the topic of the study. The contribution of three (3) dimensions that will explain the use of the online learning which include roles, challenges, and solutions. Chapter Three will analyse more deeply the research method.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter explained about research methodology used to identify the aim and research goal as stated in Chapter One. To answer the research question, appropriate research procedures must be followed and calculated in this chapter. This chapter also consists of research design, methodological choices, sources of data,

3.2 Research Design

According to Creswell & Plano Clark (2007, p.58), a research design is defined as the processes for collecting, analysing, interpreting, and reporting data in research projects. It is the general strategy for integrating conceptual research issues with appropriate (and achievable) empirical research. In other words, from Grey (2014), the study design specifies the technique for collecting and analysing the required data, as well as the methodologies to be used to gather and analyse that data, and how all of this will be used to answer the research question.

According to Robson (2002), there are three types of study designs which are exploratory, descriptive, and explanatory. His classification is based on the study area's objective, as each design serves a distinct end goal. For example, from Blumberg, Cooper and Schindler (2005), the goal of a descriptive study is to paint a picture of a scenario, person, or event, or to demonstrate how things are related to one another and how they occur naturally.

In Akhtar's (2014) definition of research design, there are four types of them which are exploratory research, descriptive research, explanatory research, and experimental research. He also noted that the research design is crucial because it makes it easier to handle the many research techniques, resulting in research that is as professional as possible, offering maximum data with little work, time, and money investment.

According to Saunders et al. (2012), research design refers to a study's overall strategy for addressing the research question. A conceptual system is being developed by the researchers. Data collection, measurement, and analysis are all part of the study design, which also serves as a basis for justifying the methods and data sources employed to answer research questions and establish research objectives. It is possible to think of research design as an inquiry that will help guide the research design process.

There are many connected decisions to be made in the design phase of research. Nevertheless, Sileyew (2019) said that choosing a research technique is critical since it defines how relevant information may be obtained for a study. As a result of this study methodology, researchers are able to collect information from a selected MPP on the challenges and the solutions from their views and opinions about online learning.

3.2.1 Descriptive Research

According to Williams (2007), descriptive research is a way for figuring out the current state of a phenomena. Description research aims to describe and characterise a phenomenon, says Nassaji (2015). Other than that, additional definitions of descriptive research are provided by Walliman (2011) is based on an observation in collecting the data.

3.2.2 Exploratory Research

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According to Saunders et al (2007), exploratory research is undertaken when there is insufficient knowledge about a phenomenon or an issue which has not been thoroughly identified. It does not attempt to provide definitive and conclusive solutions to the research questions, but rather to examine the research issue in varied degrees. As a result, Brown (2006) said, its theme is to address novel challenges on which little or no prior study has been conducted. In addition, from Singh (2007) said that even in the most extreme cases, exploratory research serves as the foundation for more conclusive study by determining the first research design, sample methodology, and data gathering method.

3.2.3 Explanatory Research

According to Grey (2014), explanatory research seeks to explain and justify for descriptive data. Besides, descriptive method may address 'what' questions, whereas explanatory method aims to answer 'why' and 'how' questions. It conducts exploratory and descriptive method before determining the actual causes of a phenomenon. Explanatory research seeks causes and reasons, as well as evidence to support or reject an explanation or prediction. It is carried out in order to uncover and report some correlations between various components of the phenomenon under consideration.

In this study, the researcher uses the explanatory approach to collect data and information based on a previous research topic and to find a gap in the existing study. A interview targeted toward SRC in UTeM is used in this study. The researcher can then use these studies to come up with new data collection strategies. For instance, a questionnaire can reveal the challenges of online learning that face by SRC in UTeM.

3.3 Research Methodology

According to Bauman (1998), a researcher's technique is fundamental way for conducting a probe. It includes all of the equipment and methods necessary to carry out a certain investigation or finding. Selecting the appropriate research approach for the research objective is so critical. In addition, the research technique also refers to the approach used to collect data for a study (Sam, 2012).

Besides that, there are two types of methodological choices that can be choose. It consists of quantitative and qualitative methods. According to Shank (1989), the quantitative method uses mathematical models and statistics for doing research, it will produce numerical results that are considered more accurate. For example, the data is collected through a survey and questionnaire. On the other hand, he also noted that the qualitative method typically uses what, how, and why questions that requires the collection of data to answer research question. For example, conducting an interview session from selected individual and recording the interview to get the data.

3.3.1 Quantitative Method

Aliaga and Gunderson (2000) define quantitative method as a technique that explains a phenomenon through the collection and analysis of numerical data. Besides, according to Creswell (2003) said it is a method in which applies strategies of inquiry, such as experiments and surveys, and collects data using specified instruments that produce statistical results. The primary advantage of quantitative research is tht its methods generate trustworthy, quantifiable data that can possibly be extrapolated to a vast population, according to Marshall (1996). In addition, it is feasible to verify and validate previously created ideas regarding how and why phenomenon occur by evaluating hypotheses formulated before obtaining the necessary data.

3.3.2 Qualitative Method

Denzin & Lincoln (2008) define qualitative method is intended to give the researcher with a means of comprehending a phenomenon by seeing and interacting with the research's participants. Consequently, qualitative method is interested in investigating and understanding phenomena in their natural context. Besides, Creswell (2003) said that one of the major characteristics of qualitative method is that they have the capacity to create extensive descriptions of the thought processes of participants and tend to focus on "why" a phenomenon has occurred.

Researcher uses a qualitative method in this study. Qualitative method questions, such as what, how, and why are required that focus on the individual's feelings, ideas, and perceptions while analysing unique human actions. According to Creswell (2014), it is employed because it is a method for examining and interpreting the meaning that individuals or groups attach to a social or human issue. An appropriate use of the qualitative technique is to investigate unknown events, or to get a knowledge of a certain culture's values. According to Madrigal and McClain's statement (2012), human behaviour, emotions, and personality types are better studied qualitatively than quantitatively.

According to Sauro (2015), there are five forms of qualitative research. These methodologies include ethnography, narrative, phenomenology, grounded theory, and

case study. This study employed phenomenological qualitative research. It is because it is utilised to identify an occurrence, activity, or phenomena. It is possible to undertake this type of qualitative research using a variety of techniques, including interviews, document analysis, video observation, and site visits, in understanding the significance that people attach to the research topic.

3.4 Research Strategy

Jenny (2014) explains that a research strategy is a process plan of action that directs the ideas and activities, enabling one to undertake research consistently and on schedule to get excellent results and detailed reporting. The researcher employs a research strategy to explore the subject matter of the study. This research style allows academics to tackle research problems in a systematic manner. The specified purpose, resources for data gathering, and research questions all contributed to a successful research approach.

3.4.1 Interview design

In this study, the researcher collects data and information using primary sources such as an interview. It is the strategy utilised most frequently in the research. Question in interview consist of a series of open-ended questions to which respondents will respond. The researcher may conduct interview via online platform such as Google Meet or face-to-face that participants find comfortable with.

According to Patton and Chochran (2002), an interview is similar to an ordinary conversation, but its primary purpose is to collect information. It is the technique that employs the opinion, belief, and feelings of interviewees. This strategy can assist the researcher in gaining a deeper knowledge of people's experiences. Asking the interviewee multiple questions might also provide the researcher with more input.

Ary (2010) divides interviews into three different types. Structured interviews are comprising the first category. In contrast to unstructured interviews, structured interviews are pre-planned. Appropriate care has been taken to formulate the interview question. The interviewer will pose the same question to all of the candidates. Semi-

structured interview is the second category. It is the interview that combines the rules for structured and unstructured interviews. The questions were being prepared before the interview, but it can also be altered or updated during the interview. Unstructured interviews are the final category. The question has not yet been posed in this style of interview. Depending on the circumstance, the question may be posed. This indicates that no preparation is necessary for this particular interview. It is dependent on the circumstances encountered throughout the interview procedure.

In this study, a semi-structured interview method is selected for conducting interviews. This indicates that there are two interview approaches. The researcher can prepare the questions and adjust it during the interview process. Then, notes are taken and documented during the interview process. Before conducting an interview, the researcher does a question analysis with supervisor. Then, the researcher verifies the question with the supervisor to determine whether or not the question is suitable and was classified for online learning.

After collecting clear question, a researcher uses the questions through interviews in order to obtain reliable data. The researcher conducted interviews with nine (9) individuals from non-engineering SRC students for this study. On the selected questions, the interviewees will be questioned regarding their views and opinions of online learning. The interviewees are also questioned regarding their rationale and feelings about online learning.

3.4.1.1 Procedure for Interview

According to Ary (2010), the procedure component of a research paper describes the qualitative research's specific processes. This section will demonstrate the process of acquiring information and data. Document analysis and interviews operate as the data collection methods. The steps that will be using are as follows:



Figure 4: The progress of contacted respondents by researcher

3.5 Data Collection

Research relies heavily on data, both in the form of observations in the field and in the form of numbers. Data collection is the process of methodically and sustainably gathering and measuring information about variables of interest in order to answer specified research questions, test hypotheses, and assess outcomes (Megel & Heermann, 1994). Research questions and objectives will guide the researcher in identifying appropriate data collection sources. There are two types of sources of data which are primary data and secondary data. Therefore, the researcher employs both primary and secondary data in this study.

3.5.1 Primary Data

Primary data is information that has been gathered from unfiltered sources, such as through the use of questionnaires, interviews, and experiments. It is created with the research topic in mind, using only primary sources as the basis for the compilation. Primary data consists of unreleased information and is more credible, authentic, and impartial than secondary data. According to Megel and Heermann (1994), the primary data has not yet been modified or changed by human beings. As a result, its validity is higher than the secondary data. When conducting an interview, it is crucial to collect information from primary sources and working with that data by processing it carefully.

Basically, in research study, there are surveys, findings, questionnaires, and interviews that will serve as the primary data sources. The findings show that the survey process yielded more reliable and objective primary knowledge. Questionnaires are techniques for collecting information from respondents via a series of questions. The respondent must open or close and answer each question in a questionnaire. Questionnaires are a cost-effective and efficient way to collect massive amounts of data from a big number of individuals, and they can be an excellent approach for gauging the behaviour, attitudes, opinions, and intentions of a large number of respondents.

As mentioned before, the researcher collected data from interview sessions with six respondents from SRC in UTeM. There were from Faculty of Electronics and Computer Engineering, Faculty of Electrical Engineering, Faculty of Manufacturing Engineering, Faculty of Information and Communications Technology, Faculty of Technology Management and Technopreneurship, and Faculty of Electrical and Electronic Engineering Technology. The researcher has done the interviewed session successfully.

اونيونر سيتي تيڪنيڪل مليسيا ملاك 3.5.2 Secondary Data UNIVERSITI TEKNIKAL MALAYSIA MELAKA

According to Megel and Heermann (1994), secondary data is information acquired from a source that has previously been made public in any manner. Secondary data is extremely significant because it is difficult to construct new surveys that can reflect previous changes. Books, documents, journals, newspapers, and online articles are examples of secondary data sources.

In this study, the researcher accessed information from the previous studies using secondary data. Internet articles, journal articles, and books are all examples of secondary data sources utilised by the researcher. Numerous periodicals are relevant to this study, which examines students' views regarding online learning, as discovered by the researcher.

3.6 Data Analysis

According to LeCompte & Schensul (1999), data analysis begins when data is collected in the field and the researcher has been no longer on the field. In addition, according to Ary (2010), data analysis is the act of organising and analysing data systematically in order to have a better knowledge of it and to be able to express that to others. Reviewing and categorising data will be the foundations of interpretive data analysis. The transcribed of the interviews will be reviewed for patterns. Patterns and repetitions are examined in qualitative data analysis. To put together the patterns, the coding technique will be used. Based on the principle of generalisations, one-sentence summaries will be used as well. The steps that will be using are as follows:



Figure 5. The step of analysing data

3.7 Sampling Design

The sampling design is a crucial aspect of any research since it affects the data that the researcher collected and the findings that the researcher obtained from the data analysis. Sample design, according to Kabir (2016), refers to the strategies and procedures to be followed in selecting the sample from the target population, as well as the formula for calculating the sample statistics using the approximate technique. These statistics are inferred population

parameters based on approximation. The researcher can use sampling design to determine sampling techniques, sample size, sampling location, and time horizon.

3.7.1 Sampling Techniques

According to Hejazi (2006), the process of selecting a sample of the population to represent the entire population is known as sampling. The analysis will become more comprehensive if the researcher considers a group of the population as a sample from the population. Factors such as a lack of human resources, a lack of precision, expensive costs, insufficient technology, and population dispersion restrict researchers from researching the complete population in many research investigations. It is recommended to research only a portion of the population in this situation.

The sampling technique, according to Kabir (2016), defines the mechanism for selecting sample units. The study objectives, financial resources available, time constraints, and nature of the topic to be studied all determine which sample technique will be used. Probability and non-probability sampling are the two types of sampling procedures that can be used.

Probability sampling is a sampling method that use randomness to ensure that every participant of the population has an equal chance of being included in the sample chosen. Besides, according to Legan & Vandeven, (2003), random sampling is another name for it. On the other hand, non-probability sampling is an approach that focuses mostly on the researcher's skill to choose sample elements. It is unrelated of randomness. Non-random sampling is another name for this form of sample as said by Legan & Vandeven (2003).

In this study, the researcher chooses to use the non-probability sampling method which is purposive sampling.

3.7.2 Sampling Size and Location

The target group for this study is adult who live in the Universiti Teknikal Malaysia Melaka. Student Representative Council (SRC) was chosen as a respondent because they have been using online learning from early MCO and engaged for about two (2) years experiences. They are potential users of online learning as they have a better understanding of the environment. In addition, this location was chosen for the study because according to SRC Official Instagram's account (@mpputem2122), the population of SRC in UTeM as for 21/22 session were 28 students. The respondents selected were from six respondents from non-engineering faculties, engineering faculties and technology engineering faculty.

3.7.3 Time Horizon

A time horizon, often referred to as a planning horizon, is a set point in the future at which particular procedures will be assessed or taken to have completed. In accounting, finance, or risk management regimes, it is crucial to set up such a predetermined horizon time so that alternatives can be assessed for performance over the same duration. A time horizon is an impossibility in the real world (Kelly & Booth, 2013). The two alternatives for the temporal frame are longitudinal studies and cross-sectional studies.

Cross-sectional or one research are different from longitudinal studies, according to the Closer Learning Hub website. Cross-sectional studies examine a different sample of people each time they are conducted, but longitudinal studies examine the same sample of people over time. This is the major difference between the two types of studies.

The analysis used for this study was a horizontal cross-sectional timeframe because the researchers were given a short window of time to complete it. The researcher has adhered to the study proposal from chapter 1 to chapter 3 for the PSM 1 in Year 3 Semester 2. Also, researchers have gathered information from respondents for the PSM 2 in Year 4 Semester 1 and analysing it and finish the full report.

Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Activities																
FYP 1 Briefing																
Supervisor																
distribution																
Topic Selection																
Chapter 1																
Chapter 2																
Chapter 3																
Proposal Submission																
Preparation																
Presentation																
Final Proposal	W.	1 mil	24	2a												
Submission				N. R.												
Table 1. Gantt Chart of PSM 1 in 2022																

	UND											r		
Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Activities	A L		3)-	A,	v	2.	S	يت ،	13	اور		10	
FYP 2 Briefing		CITI	TE	ZMI	KAI	M		vei	A M		KA			
Meeting Progress with		9111				- 1717		1.511	- 171		1.00			
SV														
Interview Session														
Chapter 3														
Chapter 4														
Chapter 5														
Video Submission														
Q&A Session														
Final Submission														

Table 2. Gantt Chart of PSM 2 in 2023

3.8 Summary

Throughout this chapter, the researcher explained the approach of research methodology that can be used to finish this research. It will be the guideline for researchers to choose the best method for carrying out the research objective, research questions, discussion, data analysis, and findings of this research. The researcher uses qualitative techniques with semi-structured interview.



CHAPTER FOUR: DATA ANALYSIS AND DISCUSSIONS

4.1 Introduction

In this chapter, the result of the case study in online learning among SRC is analysed. Firstly, the researcher had targeted to conduct the interview session with six respondents. The researcher successfully conducted the interview with all the respondents. The objective of this chapter is to outline, examine and interpret data and patterns obtained from the interviews. The implications of the results and comparison to the literature are then discussed in the final chapter, Chapter 5. This study sought to answer to the research questions below:

a) What are the roles of online learning among university students?

- b) Why university students face challenges for online learning?
- c) How the problems of online learning can be solved among university students?

4.2 Respondent Background

The qualitative research approach was used to conduct semi-structured interviews with six respondents from selected position of SRC in UTeM. Interview session were also conducted face-to-face with four respondents and two people were conducted online.

Respondent A

The first respondent that the researcher had interviewed was Respondent A. Respondent A was positioned as Exco of Sports and Recreational Executive of SRC. He was from Faculty of Manufacturing Engineering (FKP) and currently in fourth year student in UTeM.

Respondent B

The second respondent that the researcher had interview was Respondent B. Respondent B was positioned as General Secretary of SRC. He was from Faculty of Electrical Engineering (FKE) and currently in fourth year student in UTeM.

Respondent C

The third respondent that the researcher had interview was Respondent C. Respondent C was positioned as Vice President 3 of SRC. He was from Faculty of Information and Communications Technology (FTMK) and currently in fourth year student in UTeM.

Respondent D

The fourth respondent that the researcher had interview was Respondent D. Respondent D was positioned as President of SRC. He was from Faculty of Technology Management and Technopreneurship (FPTT) and currently in fourth year student in UTeM.

Respondent E

The fifth respondent that the researcher had interview was Respondent E. Respondent E was positioned as Exco Academic and Career of SRC. She was from Faculty of Electrical and Electronic Engineering Technology (FTKEE) and currently in fourth year student in UTeM.

Respondent F

The sixth respondent that the researcher had interview was Respondent F. Respondent F was positioned as Exco Volunteer and Humanitarian of SRC. She was from Faculty of Electronics and Computer Engineering (FKEKK) and currently in fourth year student in UTeM.

4.3 Findings UNIVERSITI TEKNIKAL MALAYSIA MELAKA

The respondents were interviewed at the Universiti Teknikal Malaysia Melaka. Four of the respondents wanted to be interviewed online and two other respondents wanted to be interviewed face-to-face at a UTeM's library. Our six responders took average of 30 minutes interviewing them. Data analysis results were manually analysed using thematic analysis. In fact, the questions asked by the researcher to the respondent are dependent on the study's goals.

4.4 The Role of Online Learning Among University Students

The researcher had conducted a few interview sessions with the experienced respondents to give their opinions and in-dept idea about the roles of online learning among university students. There are a lot of roles related to online learning given by the Student Representative Council (SRC).

Table 3 shown the roles given by the selected respondents that the researcher had interviewed in this research.

		RESPONDENTS									
ROLES	Α	B	С	D	E	F					
Easier two-way communication	/	/		/							
Efficiency and effectiveness	/				/						
Easy access to education	/	/		/	/	/					
Same as traditional learning	/	~	/			/					

 Table 3. Roles of online learning given by the respondents

As shows in the table above, the majority of the respondents highlight that easy access to education, treat online learning as traditional learning, be prepared for online class, and be responsible and disciplined are the most highlight for roles of online learning. On the other hand, those other three roles were not much gotten attention from some of the respondents.

Moreover, the selected respondents said that the online learning really gives students the benefit to get an easy access to education for all students during pandemic Covid-19. Besides that, the new transformation from traditional learning to online learning was a signal from government that we need to shift to digitalization of education.

4.4.1 Easier two-way communication

According to the table above, Respondents A, B, and D were saying that online learning could make the students and lecturer has an easy two-way communication. This shows that two-way communication is a crucial aspect of any learning environment, and it is especially important in the context of online learning. The ability for students and instructors to easily communicate with one another can lead to a number of benefits that can enhance the overall learning experience.

".....online learning among university students is to make communications between students and lecturers easier because students can ask anytime to the lecturer and the lecturer can respond anytime to the students through social media. So that students no need to go to the lecturer's room....."

Respondent A

One of the main strengths of easier two-way communication in the context of online education is that it makes it possible to have a more individualised educational experience. When students are able to more readily ask questions of their lecturers, obtain feedback on their inquiries, and participate in class discussions, they are better able to comprehend the content at hand and modify their education to better suit their specific requirements. Better learning results can be achieved as a result of increased student engagement and motivation brought about by this.

Another advantage of online learning is improved problem-solving capabilities, which are made possible by the enhanced capacity for two-way communication. Students are in a better position to obtain timely feedback and direction from their teachers when they are able to communicate with those teachers in a rapid and straightforward manner. This can be helpful in preventing misunderstandings and confusion, and it can also enable students to more swiftly overcome whatever barriers they may be facing.

Additionally, two-way communication in the context of online learning can assist in the development of a feeling of community and facilitate the working together of students and teachers. When people are able to communicate with one another in a straightforward manner, they are better able to form connections with one another and collaborate on the accomplishment of shared objectives. This might result in a learning environment that is more upbeat and supportive of its students, which would be to everyone's advantage.

The employment of synchronous and asynchronous communication tools, such as video conferencing, instant messaging, discussion forums, and email, can make twoway communication simpler and more efficient. These tools have the potential to help bridge the gap between students and teachers, allowing for improved communication that is also more time and resource efficient.

To summarise, making communication in both directions simpler is critical to the success of online education. It makes it possible to have a learning experience that is more tailored and efficient, and it has the potential to lead to improved learning outcomes as well as a learning atmosphere that is more encouraging and supportive. Online educators have the ability to improve communication between students and instructors as well as enable a more positive experience for students participating in online learning by utilising resources such as video conferencing, instant messaging, discussion forums, and email.

4.4.2 Efficiency and effectiveness

According to the table above, Respondents A and E stated that online learning can be done efficient and effectively throughout the semester. The Covid-19 pandemic has greatly impacted the way we live and work, and education is no exception. With many schools and universities closed, online learning has become a crucial tool for students to continue their education. The benefits of efficiency and effectiveness in online learning have been highlighted during the pandemic, as it allows for a more flexible and accessible way for students to learn.

"......To make learning more efficient. If students know their... like what's the role of online learning, I think that it can be utilized efficiently. So, it will make study better, more efficient......"

Respondent A

During the outbreak, it has been useful in terms of efficacy to participate in online learning. Online education, which makes use of many technological tools such as interactive simulations, films, and virtual worlds, can significantly improve the quality of the educational experience for students. These tools can make education more interesting and productive. In addition, many online learning systems have a data tracking feature, which enables instructors to monitor their students' development and adapt their instructional methods accordingly. This is a useful tool for both students and teachers.

In conclusion, the Covid-19 crisis has brought attention to the merits of efficiency and efficacy in online education. Students now have a more adaptable and convenient option to continue their education thanks to the advent of online learning, which also makes use of technology to improve the quality of the educational experience and boost its overall efficiency. The experience of the pandemic has brought to light the potential advantages of online education for the future, and it has the potential to be an effective educational resource in the event of future disruptions.

4.4.3 Easy access to education

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The philosophy that saying about easy access to education was McSweency (2010), he said that the online learning is easy to use for education for teaching and learning. This is because, the roles of online learning were to gives easy access to student's education. It was easy when the students and lecturers has the facilities and hardware for online classes. In addition, online learning was ease of setting up the environment, ease to get connected and enter the class and also ease of sharing documents and recorded video.

According to the Respondent A, the role of online learning among university students is to make the communications between students and lecturers easier because students can ask anytime to the lecturer and the lecturer can respond anytime to the students. This two-way of communication can benefit both parties because of the easy access to education. In the case of McSweency (2010) stated that, the ease of participation's communication was to make both parties get the advantage of using online learning. Respondent A also mentioned that online learning will make students utilize the learning method efficiently. Apart from that, Respondent A also said that students need to treat online learning the same way as traditional learning by treating the platform likely.

".....So, when, uh, the online distance learning is introduced to students, it, makes learning easier, easy, easy to access, and so on....."

Respondent D

Learning through the internet offers convenient access to a variety of resources and materials, including lectures, readings, and assignments, all of which may be accessed using a personal computer or a mobile device. Students are given the opportunity to examine the information at their own pace, which can be advantageous for students who require additional time to comprehend particular topics or who want to move rapidly through the subject.

To summarise, students have reaped several benefits from having quick and easy access to online education even in the midst of the pandemic. It has offered a method for students to continue their education despite disruptions caused by the pandemic, and it has made education more accessible to persons who live in rural locations or who have disabilities that make it impossible for them to attend classes in person. It is possible that online learning may become an invaluable resource for the purpose of education in the foreseeable future due to the accessibility it provides to a wide range of resources and materials, including lectures, readings, and assignments.

4.4.4 Same as traditional learning

According to the table above, Respondents A, B, C and F stated that online learning has the same role as traditional learning. The Covid-19 pandemic has greatly impacted the way we live and work, and education is no exception. With many schools and universities closed, online learning has become a crucial tool for students to continue their education. Despite the different delivery method, online learning has played a similar role as traditional learning during the pandemic.

One of the ways in both traditional and online learning are alike throughout the pandemic is in their capacity to maintain a continuous educational experience for students. Even when institutions were forced to close their doors, students have been able to continue their education through other means, including traditional learning as well as traditional and online learning. In particular, students have found that online learning has been an invaluable resource for continuing their education while away from home. This has helped to ensure that students do not fall behind in their academic pursuits.

".....So, treat the online learning class preparation the same way we treat the traditional way of learning......"

Respondent B

The utilisation of technology to improve communication and access to resources is another position that is analogous to this one. Both traditional learning and online learning have been forced to rely on technology in order to facilitate communication and access to resources, such as lectures, readings, and assignments, as a result of the shift toward remote learning. Because of this, it has been made certain that students have access to the resources essential to the continuation of their study.

In addition, providing students with a quality education has been made possible in a manner that is analogous to the role performed by both traditional learning and online learning. Students have been able to acquire the knowledge, abilities, and capacity for critical thinking that are necessary to be successful in their chosen field through both traditional learning and online learning. This demonstrates that the mode of instruction does not necessarily have a role in determining the level of education that is imparted.

In conclusion, both traditional learning and internet learning have played a comparable role throughout the course of the Covid-19 outbreak. Both have proven successful in providing students with a high-quality education, as well as maintaining the continuity of their education, facilitating communication and access to resources, and more. The epidemic has brought to light the significance of being able to adjust to varying modes of instruction and the part that technological advancement may play in making education more accessible.

4.5 The Challenges of Online Learning Among University Students

Multiple interview sessions with knowledgeable respondents were conducted by the researcher to ascertain the challenges faced by the chosen respondents when using online learning as a student. There are various challenges when using online learning during the

Covid-19 pandemic. Following interviews with the selected respondents, the researcher learned that major challenges must be overcome in order to implement effective online learning.

	RESPONDENTS									
CHALLENGES	A	B	С	D	E	F				
Technical Issue		/	/	/		/				
Bad environment			/	/	/	/				
Equipment	/			/	/					
Poor family				/						

Table 4 shown the challenges given by the selected respondents that the researcher had interviewed in this research.

Table 4. Challenges of online learning given by the respondents

As shows in the table 4 above, most of the respondents highlight that both technical issue and bad environmental issue were the main challenges that face in online learning. On the other hand, the lack of equipment had also gave the student the challenges during online learning. Besides that, poor family backgrounds also contribute to the challenges of online learning even though it is not so much stated from the respondent.

Despite all of the good of online learning, some respondent also stated the challenges that student needs to face as well as lecturers. One of the main challenges of online learning during the pandemic is the lack of access to reliable internet. Not all students have access to high-speed internet or the necessary technology to participate in online classes, which can create disparities in education. This can make it difficult for students to access course materials, participate in online discussions, and complete assignments.

The absence of face-to-face involvement and conversation with instructors and fellow students is another disadvantage of taking classes online. Students may find it challenging to ask questions, receive comments, and take part in discussions if they are enrolled in online learning rather than traditional in-person classrooms. Online learning can lack the same amount of contact and engagement as traditional in-person classes. Because of this, it may be more challenging for students to maintain their motivation and interest in their academic work. In addition, the shift toward online learning has brought issues for educators in terms of adjusting their teaching methods and providing support for students. This is a challenge that has been stated. According to the responses, many educators were unprepared to teach online and had to quickly acquire new approaches, which can be a tough process.

The respondents also provided comments regarding the lack of structure and routine, which also creates a barrier for students. Without the structure of a traditional classroom setting, it may be difficult for students to keep a steady schedule and remain on track with their studies. The lack of hands-on learning experience and activities that are not easily recreated in an online setting, such as laboratory tasks and other interactive activities, was cited as another obstacle of online learning by respondents with backgrounds in engineering.

4.5.1 Technical Issue

According to the table 4 above, Respondents B, C, D and F stated that they were facing technical issue during online classes. There were some respondents that face bad network connection during online examination. In addition, online learning has become a crucial tool for students to continue their education during the Covid-19 pandemic, however, it is not without its technical issues. Technical issues can greatly impact the effectiveness of online learning during the pandemic and can cause frustration and difficulties for students and lecturers alike.

".....I personally myself, I have to suffer when doing midterm, where my whole network went down....."

Respondent C

Usually, the respondents facing the technical issues in online learning during the pandemic is the lack of access to reliable internet. Not all students have access to high-speed internet or the necessary technology to participate in online classes, which can create disparities in education. This can make it difficult for students to access course materials, participate in online discussions, and complete assignments. There is also a difficulty with the compatibility of the hardware and software that is utilised in online education. This problem can result in a variety of technical challenges, like lagging, freezing, or crashing of the system, among other things. This can make the learning process more difficult for both students and teachers, and it can also lead to feelings of frustration.

Students may find it difficult to access their course materials and may be prevented from participating in online discussions and examinations if online learning platforms face technical challenges such as server unavailability.

Another problem that arises from technology is the absence of adequate technical support for both students and teachers. It is possible that some students and educators do not possess the requisite technical skills or expertise to troubleshoot technological issues, which might make it difficult for them to address problems and continue their education.

4.5.2 Bad Environment

Online learning during the Covid-19 pandemic has presented a number of challenges, one of which is the issue of a bad learning environment. This can refer to a number of different factors, including physical, social, and emotional factors that can negatively impact the student's learning experience.

In the opinion of Respondent E, one type of bad environment in online learning during the pandemic is the lack of a dedicated learning space. Many students are learning from home, which can be a less-than-ideal environment for learning. This can include distractions from family members, pets, or other household noise, and it can be hard to focus on the class and stay engaged.

".....You know, when we are studying online classes at home, our parents treat us like we are at home... they will say go and do this, this, and this....."

Respondent E

According to Respondent D, he stated that the bad environment in online learning during the pandemic is the lack of social interaction. Online learning can be isolating for students, as they may not have the same opportunities to interact with their classmates or instructors as they would in a traditional in-person setting. This can be especially challenging for students who rely on social interaction to stay motivated and engaged in their coursework.

Moreover, the anxiety and unpredictability brought on by the pandemic can contribute to an atmosphere that is not conducive to learning. It may be difficult for many students to concentrate on their schoolwork and maintain their motivation because they may be dealing with mental health issues caused by the pandemic. These issues, which may include anxiety or depression, can make it difficult for students to concentrate on their schoolwork.

In conclusion, a poor learning environment during the pandemic can refer to a number of different factors that can negatively impact the student's learning experience. These factors include a lack of a dedicated learning space, a lack of social interaction, as well as stress and uncertainty caused by the pandemic itself. Because of these challenges, it may be tricky for students to maintain their motivation, engagement, and focus on their courses. Additionally, it may be difficult for instructors to cultivate a productive learning environment in an online setting.

ويومر سيبي بيكينيك ميسيا مارك 4.5.3 Lack of Equipment UNIVERSITI TEKNIKAL MALAYSIA MELAKA

This challenge can refer to a lack of necessary technology or resources needed for students to participate in online classes and complete their coursework. According to the table 4 above, respondent A, D and E stated that lack of equipment can be the challenges of online learning.

According to Respondent C, the lack of equipment in online learning during the pandemic is the lack of access to a reliable computer or devices. Not all students have access to a personal computer or devices that is fast enough to participate in online classes, which can create disparities in education. This can make it difficult for students to access course materials, participate in online discussions, and complete assignments.

".....not everybody has a proper equipment... like sometimes when lecturer asked to open the camera or the microphone, but the microphone or camera were not working......"

Respondent C

In the opinion of Respondent E, she stated that the lack of equipment in online learning during the pandemic is the lack of necessary software or applications. Some students may not have access to the necessary software or applications to participate in online classes, such as video conferencing software or online collaboration tools. This can make it difficult for students to communicate with their classmates and instructors and complete their coursework.

In conclusion, a lack of equipment during the Covid-19 pandemic can relate to a lack of necessary technology or resources that are required for students to participate in online classes and to complete their curriculum. This can involve things like not having access to a dependable computer or other devices, as well as not having the essential software or applications. These factors can contribute to educational inequalities and make it more challenging for students to fully participate in class and comprehend the material being covered.

اونيوم سيتي تيڪنيڪل مليسيا ملاك 4.5.4 Poor Family ITI TEKNIKAL MALAYSIA MELAKA

This can refer to a lack of support from family members in terms of providing a suitable learning environment, helping with technology or equipment issues, or providing emotional support. According to the table 4 above, Respondent D stated that poor family can be the challenges of online learning.

The absence of a designated learning area is one of the factors contributing to inadequate assistance from family members in online learning during the epidemic. There are a lot of students who are doing their schoolwork at home, which isn't always the best atmosphere for education. It's possible that members of the family won't realise how important it is to have a calm, isolated area that's set aside specifically for studying, and they also won't be able to provide an environment like that.

Other than that, in the opinion of Respondent D, poor family support in terms of finances during the Covid-19 pandemic can be a significant challenge for students engaging in online learning. This can refer to a lack of financial resources within the family to support the costs associated with online learning, such as equipment, technology, and internet access.

".....In UTeM, uh, scientifically they are 60% of students, they are B40, or I can say poor......"

Respondent D

In addition, having inadequate financial assistance from family results in an inability to buy the essential tools and technologies for online education. Because it is possible that many students do not have access to a personal computer or internet connection, it is possible that these equipment will need to be purchased or rented in order for students to take part in online classes. This can be a considerable expense for families who are already having trouble making ends meet, and it may impede students from being able to fully participate in online learning.

In conclusion, one of the most significant challenges that students who participate in online learning may face is having insufficient financial support from their families during the Covid-19 pandemic. It may allude to the fact that the family does not have the financial means to cover the expenditures that are associated with online education. This can create barriers to education and make it difficult for students to participate in online learning to their full potential and reap the benefits of such participation.

4.6 The Solutions of Online Learning Among University Students

The Covid-19 pandemic has greatly impacted the way we live and work, and education is no exception. With many universities closed, online learning has become a crucial tool for students to continue their education. However, online learning has also presented a number of challenges. In order for online learning to be effective and accessible during the pandemic, it is important for students to take an active contribution in finding solutions to these challenges.

4.6.1 Student Contribution

Students need to realise the importance of taking responsibility for their own education if they want to make a significant contribution to the search for solutions to the challenges presented by online learning during the epidemic. This includes being proactive in terms of requesting help and resources when they are needed, creating clear objectives and expectations for themselves, and remaining organised and on track with their coursework. Students can maximise their potential for success through online education by taking responsibility for their own education and making the most of their time spent studying online.

Aside from that, the most important thing that students can do is actively communicate with both their teachers and the other students in their classes. Students may find it challenging to ask questions, receive comments, and take part in discussions if they are enrolled in online learning rather than traditional in-person classrooms. Online learning can lack the same amount of contact and engagement as traditional inperson classes. Students can contribute to create a learning environment that is more participatory and engaging by maintaining open lines of communication with both their instructors and the other students in their classes.

Based on Respondent E's idea, the shift to remote learning can also present challenges in terms of structure and routine. To address this issue, students can take an active role by creating a schedule and sticking to it, setting clear goals and deadlines, and staying organized. By taking responsibility for their own learning, students can stay on track and make the most of their online learning experience.

".....build your schedule by using the calendar, you know, the box of calendar. List out every single thing that you, you have to do......"

Respondent E

In conclusion, the pandemic of the COVID-19 virus has brought a number of issues for the field of online education. Students may, however, assist ensure that online learning is effective and accessible throughout the pandemic by taking an active role in developing answers and contributing to the search for those solutions. This includes kids taking responsibility for their own education, engaging in meaningful conversation

with both their teachers and their peers, and lobbying for improved access to technology for all students.

4.6.2 University's Responsibility

The provision of dependable internet service and the appropriate technological resources to students should rank among the highest priorities for educational institutions. This can take the form of making computers or tablets available for loan. In addition, colleges can provide students and teachers with access to training and assistance for online learning platforms, as well as a helpdesk or technical support team they can contact if they have any questions or concerns regarding technological issues.

Based on the idea of Respondent C, the responsibility of universities is to provide opportunities for engagement and interaction among students and lecturers. This can include providing regular online discussion boards, playing some mind thinking game, virtual office hours, and group projects. By providing these opportunities, universities can foster a sense of community and engagement among students and lecturers.

".....so, they can use those as medium to teach rather than just a video. So, I think the game that people want to interact, they will feel their involved rather than just watching something......"

Respondent C

Providing students with structure and routine throughout their time spent online learning is another job that falls on universities. This may include providing students with a variety of scheduling alternatives, as well as establishing and communicating clear due dates for assignments and evaluations. Students can also benefit from the resources and support that universities can offer them in order to help them remain organised and on track with their academic work.

In addition, educational institutions have a duty to fulfil their obligation to offer students with emotional and psychological assistance throughout the pandemic. This includes developing support groups for students to discuss their worries, offering
regular updates on the situation to the students, and providing resources for students to manage their own mental health and well-being.

4.6.3 Government Incentive

The main incentives that government can provide is to ensure that students have access to reliable internet and necessary technology. This can include providing funding for universities to purchase laptops and tablets for students, as well as providing internet subsidies for low-income families. This is according to Respondent F's to have the students free internet during online learning.

".....Government should provide free internet data. And then they give a student can actually use the data and join the online classes without having the pressure of connections....."

Respondent F

Giving students and teachers access to financial aid is another form of support that the government can provide as an incentive. This can involve providing financial assistance to students from low-income families to aid with the cost of equipment, technology, and internet access. Additionally, this can include providing cash to universities to pay the cost of delivering online education.

In addition, the government can offer financial incentives to make sure that online education is available to all students, regardless of their family situation or other factors. This involves giving financing for universities to design and execute programmes to serve students who originate from disadvantaged backgrounds. These students include those who come from low-income households, students with impairments, and students who live in distant or rural locations.

In conclusion, the role that government incentives play in tackling the issues of online learning during the Covid-19 pandemic is significant. The government can assist in ensuring that all students have access to the resources necessary to participate in online learning and to continue their education by providing funding for equipment, technology, internet access, and educational programmes. This will help ensure that students are able to continue their education despite the current economic climate.

4.7 Summary

This chapter covered the result and analysis of this study from the data that collected through qualitative method. The interview sessions were conducted with six respondents from Student Representative Council in Universiti Teknikal Malaysia Melaka. Each of the respondent have sharing their experience and knowledge about the roles, challenges and the solutions of online learning. The result was presented by the aid of figures and supported by the secondary data. Furthermore, recommendation and conclusion will be further discussed in Chapter Five.



CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

In this chapter, the discussion is based on the results of the data analysis on what has been outlining in the chapter four. The research objectives of this research are successfully achieved, and the research questions of this research have been answered. The first research objective is to study the role of online learning among university students. The second objective is to examine the challenges of online learning among university students. The third objective is to recommend solutions of online learning among university students. The challenges of online learning among Student Representative Council of UTeM post Covid-19 pandemic were also explored, along with some recommendations for future study.

The analysis findings are explored and reported in Chapter Four. The research's findings and implications are presented in Chapter Five. The contribution, constraints, and recommendations for further study are then demonstrated.

5.2 Summary of Findings

An overview of the results along with three key problems based on the study's goals. The three problems include roles of online learning, significant challenges with online learning, and the recommended solutions to those difficulties. First and foremost, this study sought to pinpoint the most successful learning methods. There are several efficient methods that may be used, including online, offline, or physical or even hybrid learning. The researcher discovered throughout the interview sessions that the respondent's main area of interest were to have online and physical learning.

It is interesting to notice that the research approaches that have been demonstrated to have the highest level of effectiveness here are extremely active. Recent research according to Cathy Meilleur et al (2021), has shown that "active" educational practises are superior to "passive" educational practises for both teaching and learning. This finding has garnered a lot of attention. In order to have a good environment while doing online learning, online learning itself should have provide a strong role to students and lecturers. However, the researcher mainly focuses on the key roles followed by the respondents to guarantee the viability of online

learning. These findings were based on results evaluated in Chapter Four. One of the roles that responders stated most was online learning was giving an easy access to education. This study discovered that online learning provides easy access to education during and after the Covid-19 pandemic by providing more flexibility, accessibility, and affordability for students. It can also help bridge the gap between students and lecturers and provide the opportunity for everyone to learn from anywhere and during any circumstances.

Second, the researcher's focus is on examining the challenges that developed when novel learning method are used in higher education institutions which is online learning that is rare method before Covid-19 pandemic hits Malaysia. The researcher believed that these objectives were significantly affected the of online learning in this study. However, the researcher has identified a several number of hurdles from the findings of interviews with six respondents whereby the majority of them share a number of issues, and the difficulties that they experienced do definitely have a significant influence on them and students generally. Implementing online learning as a learning method during Covid-19 pandemic presents a number of difficulties including from technology issue, environmental issue, equipment issue, and family support issue.

What the researcher can infer is that while obstacles have undoubtedly been experienced by each responder, it chooses to focus on technology issue as the biggest challenges to completing online coursework. Technology unquestionably presents a significant difficulty since it affects most students in the same way — the internet connection. According to Pui Yee (2020), less privileged students might experience more difficulties in term of internet access. The question for students, however, is how well their preparation to make sure they have a good internet connection to attend the online classes every day.

During the Covid-19 pandemic, students encounter significant challenges due to internet connectivity concerns. Students are unable to access online learning materials, participate in class discussions, or complete homework unless they have a strong internet connection. One of the major challenges is a lack of internet connection in some locations, particularly in rural or low-income areas. Students living in these places may find it challenging to participate in online learning as a result of this. Even if the students have internet access, the connection speed may not be sufficient to facilitate online learning activities.

To summarise, while internet connection concerns are a key challenge for students during online learning during the Covid-19 pandemic, they may be handled by coordination between the government and universities to give easy access to education.

Thirdly, the researcher conducted a study to ascertain how much student, university and government have an effect on online learning as methodology to continue education during and after pandemic Covid-19. Based on the researcher's observation of the many choices taken by the respondents in the interview session, they mostly stated that the students, university and government were like an ecosystem that related to each other by contributing and playing each other parts in continuity of education using online learning method. Students have the possibility to continue their education despite the difficulties presented by the epidemic thanks to online learning, which gives them the chance to do so.

They have access to study materials and may take part in class discussions without having to leave the comfort of their own homes, which is especially beneficial when there is a crisis involving the public's health. The significance that universities play in this environment cannot be understated, either. They are the ones who are in charge of supplying the essential infrastructure, which includes things like online platforms and software, in order to facilitate online learning. Despite the trend toward online learning, they are nonetheless responsible for ensuring that the standard of education upheld in more conventional modes of instruction is maintained. On the other hand, it is the obligation of the government to make sure that all students have access to the necessary equipment and the internet in order to participate in online learning. They are able to accomplish this goal through the provision of financial assistance to students and educational institutions, as well as through the implementation of programmes that expand internet access in disadvantaged communities. Finally, students, universities, and the government can co-create a sustainable ecology for online learning by working together. This will ensure that education will continue to be easily accessible during and after the pandemic.

5.3 Theoretical Implications

Exploring new approaches, tools, challenges, alternatives, and pedagogies is supported by a plethora of conceptual frameworks. This essay focuses on educating students in higher education about innovation in order for those students to comprehend novel approaches to online learning, such as those mentioned in Chapters One and Two. Education can benefit from new pedagogical theories, methodological frameworks, instructional methods, instructional technologies, and learning methodologies. Innovation can also take the form of new instructional approaches.

This argument is supported by a piece of writing that was released by Epignosis in 2014 and titled "Online Learning," in which the author defines online learning as "an educational platform or framework built on a computer that allows you to learn anywhere and at any time". The alternative of obtaining one's education through the use of the internet is one that is less difficult, more cost-effective, and perhaps even more advantageous (Epignosis, 2014). Based on previous Chapter Two, through the use of online learning, students have the opportunity to combine their education into their daily lives, making it feasible for even the busiest of individuals to pursue a career and successfully gain new qualifications (Epignosis, 2014). The implementation of these innovative learning method is supporting equitable learning, improving academic standards, and addressing urgent concerns.

According to Kaltura (2021), the purpose of implementing this progressive learning online is to improve academic outcomes, as well as address pertinent concerns in order to foster equitable learning. Education in innovation may aid in the process of educating students for the ever-changing world of work by providing students with opportunities to cultivate skills like as creativity, adaptability, and resiliency. As educators, we have the ability to employ educational innovation to improve not only the academic achievement of our students but also the development of the soft skills that are essential for future success. In addition, it is possible to gradually educate students in the many technologies that they will need to be familiar with.

5.4 Contribution of Research

The contribution of the study to the existing body of knowledge as facts supporting it. The findings of this study can serve as a guidance for students, regardless of whether they have to be prepared to face the innovation in traditional classroom settings or in virtual learning environments. Therefore, students have the opportunity to continue to learn new learning method in educational field. This study has the potential to help other students become more aware of the challenges associated with online learning. While the outbreak is still going on, there are a few students who are unable to enrol in online classes. As a result, it is essential for students to take into consideration and pay attention to the needs of university and government policy for online learning method that will be the future of learning. Students may be able to handle and overcome challenges associated with the implementation of online learning with the assistance of awareness, experience, and general knowledge.

5.5 Limitation of Research

This research is not without its share of caveats and restrictions. The fact that the research was finished so swiftly is the first encouraging sign. There is a certain amount of time allocated to do this. The time allotted for the study, which begins in June 2022 and lasts until January 2023, is relatively short. The second problem with this study is that it does not have a very comprehensive coverage of the state. The only participants from the state that are included are Melaka-based which is the Student Representative Council in UTeM. Because of this, it is not possible to generalise the findings of the study to apply to the entire country of Malaysia. Because the respondent is also a student, the researcher faces the additional obstacle of not having sufficient time to conduct an interview with them. Because the respondent had a very busy schedule, and the researcher was forced to conduct the interviews online despite their busy schedule. Researchers are limited in their options since the transcription procedure is time-consuming and labour-intensive. In the end, the researcher was only able to interview six respondents because that was the absolute minimal number of people that responded.

5.6 Recommendation of Future Research

The researcher of this study believes that the findings will be helpful, not only to readers but also to students, university and government. If there is enough interest from other researchers, they will be able to carry out additional research on this topic. The researcher will want to provide some advice for them to carry out this research utilising approaches and challenges to embrace online learning that make use of more innovative instructional methodologies.

The equipment that lecturers use, whether it be a computer with high-end specifications, a drawing tablet, or even a camera, needs to be upgraded and made better. Students will have a greater opportunity to study for their online lectures if they adopt this method. In some cases, lecturers do not even utilise a drawing tablet; rather, they simply sketch with their mouse, which results in text that is difficult to see and possibly difficult to comprehend. However, if they have access to a drawing tablet, they will be able to write correctly, they will be able to write the examples more clearly, and it will be lot easier for the students to comprehend.

Furthermore, the researcher also recommends that the effort that lecturers put into making their classes more participatory needs to be increased. In addition to this, they need to make sure that they are engaging, informative, and fun for the students. Therefore, with regard to the students, it is necessary for them to make their pledges. At the same time, we need to create an ecosystem that is functioning properly, in which the students are responsible for supporting the lecturers and vice versa. Both of these people require assistance from the government so that they can receive the appropriate training and other necessities for education.

In addition, if in the future the government wants to implement online learning as a mandatory to universities, the government needs to plan way ahead about 5G connectivity because we all know that 5G is not big enough. Therefore, 5G internet service may be made available to all of the population, which would also cover the rural and urban areas. Therefore, the government needs to be more prepared regarding 5G because we all know that 5G installations would not be simple to come by in the near future. The government will need more money to cover the expenditures because it has a higher cost than 4G connectivity, the government needs to be better prepared for 5G.

5.7 Conclusion

In the duration of Covid-19, the goal of this study is to investigate both the methods that were utilised and the challenges that were encountered in the process of bringing educational innovation to students. In general, it is fair to assert that all different kinds of pedagogical approaches will, in the not-too-distant future, require development and expansion. They must acquire some valuable insight as a result of the challenges they face. In addition, educational professionals need to be better prepared to deal with extraordinary occurrences such as the recent Covid-19. As a direct result of this, student now have a ability to cater with continue presenting online learning. Online learning is a relatively new idea that has only recently begun to gain traction among those students and lecturers in education sector at the present time. In light of the fact that technological progress is being made on a daily basis, the learning method ought to be more proactive in becoming more innovative students in the years to come.



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APPENDICES

APPENDIX 1

GANTT CHART PSM 1

		NA.P	LAY	SIA													
Wee	eks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Activities	1 miles	1	2	5	TA A	5		<i>'</i>	0		10	11	12	15	17	15	10
FYP 1 Briefing	TE																
Supervisor	00	1						1									
distribution	.1	- arn	n .	1				_		_							
Topic Selection	2	No	h	aul	° J	9	Ri.	6	2	è iš	1	5	ويو				
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Chapter 2	0.14		1.00		1 - Las I -		-					i in in					
Chapter 3																	
Proposal Submis	sion																
Preparation																	
Presentation																	
Final Proposal																	
Submission																	

GANTT CHART PSM 2

Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14
FYP 2 Briefing														
Meeting Progress with SV	hAL	YSIA	201											
Interview Session			P	. v. A										
Chapter 3								1						
Chapter 4	and and													
Chapter 5	L (-				. /					• 1			
Video Submission —	you u		so c				3:	9	2.	2.	اون			
Q&A Session	IVER	SIT	TE	KNI	KAI	. M/		YSL	A M	ELA	KA			
Final Submission														

CONSENT LETTER

I vo	plunteer to participate in a research project conducted by Salman bin Shafaruddin
fro	m Faculty of Technology Management and Technopreneurship (FPTT), UTeM.
Lur	nderstand that the project is designed to gather information to complete the researcher's Final Year
	oject (FYP).
1.	My participation in this project is voluntary. I may withdraw and discontinue participation at any
	time. If I feel uncomfortable in any way during the interview session, I have the right to decline to
	answer any question related to the interview.
2.	I agree to be recorded during the interview session.
3.	I have read and understand the explanation provided to me and Lvoluntarily agree to participate
	IN THIS STUDY. UNIVERSITI TEKNIKAL MALAYSIA MELAKA
	Participant's Signature Date
	()
	Researcher's Contact Information
	Salman bin Shafaruddin - FPTT

INTERVIEW QUESTION



D: Challenges of Online Learning

What do you think the challenges of online learning among university students?

Why university students face challenges for online learning?

How can the challenges of online learning affect university students?

E: Solutions of Online Learning

What do you recommend for the solution of online learning?

Why do you think those you have said can be the solution of online learning among university students?

How can you implement the solutions that you just recommend?

F: Concluding Remarks

Based on the interview session today,

What is your suggestion for future online learning among university students?

What is your recommendation in the future to improve online learning among university students?

What is your suggestion to government and university regarding online learning among university students?

SLIDE PRESENTATION





Always A Pioneer, Always Ahead

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1	Introduction
Ш	Problem Statement
Ш	Research Question & Research Objective
IV	Study Significance
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VII	Research Findings
VIII	Summary
IX	Recommendations

X Gantt Chart





- The typical instructional delivery system was a classroom.
- Covid-19, MOHE has stated that all public and private universities would use online learning.
 Online learning a popular to the emergence of percent.
- Online learning a popular to the emergence of new learning behaviour changes has a wide impact on various aspects of universities life

Self-motivation

Time Management

various everyday

commitment

• fall behind and giving up

Technical Issue

• high bandwidth or the strong internet connection

Adaptability Struggle

• "traditional" mindset finds it difficult to adapt



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Research Question

RQ 1: What are the roles of online learning among university students? RQ 2: Why university students face challenges for online learning? RQ 3: How the problems of online learning can be solved among university students?

Research Objective

RO 1: To study the role of online learning among university students
RO 2: To examine the challenges of online learning among university students
RO 3: To recommend

solutions of online learning among university students





RESEARCH FRAMEWORK





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Research Design

Explanatory Research

Methodological Choice

Qualitative Research

Data Collection

- Primary Data
- Secondary Data

Research Strategy

- Interview
- Interview

Research Approach

Semi-structured

Data Analysis

- Thematic Analysis
 - Interview Transcription

Sampling Technique

- Non-probability
- Purposive Sampling

Sampling Size

- Total SRC 28 Students
- Participant 6 Students

Sampling Location

• UTeM

Time Horizon

Cross-sectional



VII RESEARCH FINDINGS

ROLES OF ONLINE LEARNING

- The data were obtained from an interview session with the respondents via open-ended questions.
- Researcher were using thematic analysis to analyze the data.
- We will go in-depth on the findings in this chapter

of students TEKMIK "So when, uh, the online distance learning is introduced to students, it, Easy access to education makes learning easier, easy, easy to access, and so on." 5 -Respondent D "To make learning more efficient. If students know their... like what's the Learn efficiently and role of online learning, I think that it can be utilized efficiently. So it will 2 make study more better, more efficient.* effectively -Respondent A "They need to be participated. And then, they also need to be more Easier two-way talkative, uh, they need to have two-way communication between the 2 lecturer, uh, within the lectures." communication -Respondent D "So treat the online learning class preparation the same way we treat the Same as traditional learning traditional way of learning." 4 -Respondent B

Theme	Transciption	No of students
Technical issue	"I personally myself, I have to suffer when doing midterm, where my whole network went down" -Respondent C	4
Bad environment	"You know, when we are studying online classes at home, our parents treat us like we are at home they will say go and do this, this, and this" -Respondent B	4
Equipment	"not everybody has a proper equipment like sometimes when lecturer asked to open the camera or the microphone but the microphone or camera were not working" -Respondent C	3
Poor family	"In UTeM, uh, scientifically they are 60% of students, they are B40, or I can say poor" -Respondent D	1



Theme	Transciption	No of student
Student	"build your schedule by using the calendar, you know, the box of calendar. List out every single thing that you, you have to do" -Respondent E	6
University	"so they can use those as medium to teach rather than just a video. So I think the game that people want to interact, they will feel their involved rather than just watching something." -Respondent C	6
Government	"Government should provide free internet data. And then they give a student can actually use the data and join the online classes without having the pressure of connections" -Respondent F	6



